

What is claimed is:

1. A method for evaluating a plurality of options comprising the steps of:

- a) selecting and accessing type 1 databases, DB^1_i , each of said selected databases DB^1_i including at least one option rating, $OR_i(x,n)$, for one of said options, x , with respect to a dimension n , where said option x can differ among said selected databases;
- b) selecting and accessing type 2 databases DB^2_j , each of said type 2 databases DB^2_j including at least one database rating $DR_j(i)$ for at least one of said databases DB^1_i ;
- c) associating weights, W_i with said databases DB^1_i , said weights W_i being calculated as a function of said database ratings $DR_j(i)$; and
- d) calculating an overall rating $R(m,n)$ for an option m with respect to said dimension n as a function of said weights W_i and option ratings $OR_i(m,n)$;
- e) repeating step d for each remaining one of said options for which there exists at least one option rating with respect to said dimension n ; and
- f) generating a list of said options and associated overall ratings with respect to dimension n .

2. A method as described in claim 1 where said function of said weights W_i and said option ratings $OR_i(m,n)$ is:

$$R(m,n) = \sum_i (W_i \cdot \text{Norm}(OR_i(m,n))) / \sum_i W_i;$$

- a) where $\text{Norm}(OR_i(m,n))$ is a normalization of said option ratings $OR_i(m,n)$, and
- b) summation \sum_i ranges over all of said type 1 databases DB^1_i for which said option ratings $OR_i(m,n)$ are defined.

3. A method as described in claim 2 where said option ratings $OR_i(m,n)$ are normalized with respect to a maximum rating $OR_i(\max)$ and a minimum satisfactory rating $OR_i(\text{sat})$ for each of said selected type 1 databases DB^1_i .

4. A method as described in claim 2 where, if said option rating $OR_i(m,n)$ is less than said minimum satisfactory $OR_i(\text{sat})$, said normalization, $\text{Norm}(OR_i(m,n))$ is set equal to a

predetermined value; said predetermined value being less than a normalized minimum satisfactory rating $\text{Norm}(\text{OR}_i(\text{sat}))$.

5. A method as described in claim 2 where said function of said database ratings $\text{DR}_j(i)$ is:

$$W_i = \sum_j (\text{MW}_j \cdot \text{Norm}(\text{DR}_j(i))) / \sum_j \text{MW}_j;$$

- a) where $\text{Norm}(\text{DR}_j(i))$ is a normalization of said database ratings $\text{DR}_j(i)$, and
- b) summation \sum_j ranges over all of said type 2 databases DB_j^2 for which said option ratings $\text{DR}_j(i)$ are defined; and
- c) MW_j are master weights associated with said type 2 databases DB_j^2 .

6. A method as described in claim 5 where said database ratings DR_j^2 are normalized with respect to a maximum rating $\text{DR}_j(\text{max})$ and a minimum satisfactory rating $\text{DR}_j(\text{sat})$ for each of said selected type 2 databases DB_j^2 .

7. A method as described in claim 6 where, if one of said weights W_i is less than 0, said one weight is set equal to 0.

8. A method as described in claim 5 further comprising the step of adjusting said master weights MW_j based on a user's evaluation of said list.

9. A method as described in claim 8 where said adjusting step comprises the steps of:

- a) said user identifying a selected choice m' ;
- b) calculating a partial derivative $P(\text{MW}_j') = \partial F_{m',n'}(\text{MW}_j) / \partial \text{MW}_j'$; where $F_{m',n'}(\text{MW}_j)$ is the deviation of option rating $R(m',n)$ from the mean rating, $\sum_m R(m,n)/M$ as a function of master weights MW_j , where M is the total number of options for which $R(m,n')$ is defined;
- c) setting $\text{MW}_j' = \text{MW}_j'(1 + \alpha P(\text{MW}_j'))$, where α is a small positive number; and
- d) repeating steps b and c for all remaining master weights MW_j .

10. A method as described in claim 8 where said adjusting step comprises the steps of:

- a) said user identifying a selected choice m' ;
- b) calculating a partial derivative $P(MW_j') = \partial F_{m',n'}(MW_j) / \partial MW_j'$; where $F_{m',n'}(MW_j)$ is the deviation of option rating $R(m',n)$ from the maximum rating, $\max(R(m,n))$ as a function of master weights MW_j ;
- c) setting $MW_j' = MW_j'(1 + \alpha P(MW_j'))$, where α is a small positive number; and
- d) repeating steps b and c for all remaining master weights MW_j .

11. A method as described in claim 1 where said options are rated with respect to a plurality of dimensions, comprising the further step of repeating steps d and e for each remaining one of said dimensions.

12. A method as described in claim 11 further comprising the step of adjusting said master weights MW_j based on a user's evaluation of said list.

13. A method as described in claim 12 where said adjusting step comprises the steps of:

- a) said user identifying a selected choice m' and a critical dimension n' ;
- b) calculating a partial derivative $P(MW_j') = \partial F_{m',n'}(MW_j) / \partial MW_j'$; where $F_{m',n'}(MW_j)$ is the deviation of option rating $R(m',n')$ from the mean rating, $\Sigma_m R(m,n')/M$, along said critical dimension n' , as a function of master weights MW_j , where M is the total number of options for which $R(m,n')$ is defined;
- c) setting $MW_j' = MW_j'(1 + \alpha P(MW_j'))$, where α is a small positive number; and
- d) repeating steps b and c for all remaining master weights MW_j .

14. A method as described in claim 12 where said adjusting step comprises the steps of:

- a) said user identifying a selected choice m' ;
- b) calculating a partial derivative $P(MW_j') = \partial F_{m',n'}(MW_j) / \partial MW_j'$; where $F_{m',n'}(MW_j)$ is the deviation of option rating $R(m',n)$ from the maximum rating, $\max(R(m,n))$ as a function of master weights MW_j ;
- c) setting $MW_j' = MW_j'(1 + \alpha P(MW_j'))$, where α is a small positive number; and
- d) repeating steps b and c for all remaining master weights MW_j .

15. A data processing system, said data processing system being programmed to:
- a) select and access type 1 databases, DB^1_i , each of said selected databases DB^1_i including at least one option rating, $OR_i(x,n)$, for one of said options, x , with respect to a dimension n , where said option x can differ among said selected databases;
 - b) select and access type 2 databases DB^2_j , each of said type 2 databases DB^2_j including at least one database rating $DR_j(i)$ for at least one of said databases DB^1_i ;
 - c) associate weights, W_i with said databases DB^1_i , said weights W_i being calculated as a function of said database ratings $DR_j(i)$; and
 - d) calculate an overall rating $R(m,n)$ for an option m with respect to said dimension n as a function of said weights W_i and option ratings $OR_i(m,n)$;
 - e) repeat d for each remaining one of said options for which there exists at least one option rating with respect to said dimension n ; and
 - f) generate a list of said options and associated overall ratings with respect to dimension n .
16. A system as described in claim 15 where said system is programmed to calculate said function of said weights W_i and said option ratings $OR_i(m,n)$ as:
- $$R(m,n) = \sum_i (W_i \cdot \text{Norm}(OR_i(m,n))) / \sum_i W_i;$$
- a) where $\text{Norm}(OR_i(m,n))$ is a normalization of said option ratings $OR_i(m,n)$, and
 - b) summation \sum_i ranges over all of said type 1 databases DB^1_i for which said option ratings $OR_i(m,n)$ are defined.
17. A system as described in claim 16 where said system is programmed to normalize said option ratings $OR_i(m,n)$ with respect to a maximum rating $OR_i(\text{max})$ and a minimum satisfactory rating $OR_i(\text{sat})$ for each of said selected type 1 databases DB^1_i .
18. A system as described in claim 16 where said system is further programmed to, if said option rating $OR_i(m,n)$ is less than said minimum satisfactory $OR_i(\text{sat})$, set said

normalization, $\text{Norm}(\text{OR}_i(m,n))$ equal to a predetermined value; said predetermined value being less than a normalized 'minimum satisfactory rating $\text{Norm}(\text{OR}_i(\text{sat}))$.

19. A system as described in claim 16 where said system is programmed to calculate said function of said database ratings $\text{DR}_j(i)$ as:

$$W_i = \sum_j (\text{MW}_j \cdot \text{Norm}(\text{DR}_j(i))) / \sum_j \text{MW}_j;$$

- a) where $\text{Norm}(\text{DR}_j(i))$ is a normalization of said database ratings $\text{DR}_j(i)$, and
- b) summation \sum_j ranges over all of said type 2 databases DB_j^2 for which said option ratings $\text{DR}_j(i)$ are defined; and
- c) MW_j are master weights associated with said type 2 databases DB_j^2 .

20. A system as described in claim 19 where said system is programmed to normalize said database ratings DR_j^2 with respect to a maximum rating $\text{DR}_j(\text{max})$ and a minimum satisfactory rating $\text{DR}_j(\text{sat})$ for each of said selected type 2 databases DB_j^2 .

21. A system as described in claim 20 where said system is further programmed to, if one of said weights W_i is less than 0, set said one weight equal to 0.

22. A system as described in claim 19 where said system is further programmed to adjust said master weights MW_j based on a user's evaluation of said list.

23. A system as described in claim 22 where said system is programmed to adjust said master weights MW_j by:

- a) identifying said user's selected choice m' ;
- b) calculating a partial derivative $P(\text{MW}_j') = \partial F_{m',n'}(\text{MW}_j) / \partial \text{MW}_j'$; where $F_{m',n'}(\text{MW}_j)$ is the deviation of option rating $R(m',n)$ from the mean rating, $\sum_m R(m,n)/M$ as a function of master weights MW_j , where M is the total number of options for which $R(m,n')$ is defined;
- c) setting $\text{MW}_j' = \text{MW}_j(1 + \alpha P(\text{MW}_j'))$, where α is a small positive number; and
- d) repeating b and c for all remaining master weights MW_j .

24. A system as described in claim 22 where said adjusting step comprises the steps of:

- a) said user identifying a selected choice m' ;
- b) calculating a partial derivative $P(MW_j') = \partial F_{m',n'}(MW_j) / \partial MW_j'$; where $F_{m',n'}(MW_j)$ is the deviation of option rating $R(m',n)$ from the maximum rating, $\max(R(m,n))$ as a function of master weights MW_j ;
- c) setting $MW_j' = MW_j'(1 + \alpha P(MW_j'))$, where α is a small positive number; and
- d) repeating steps b and c for all remaining master weights MW_j .

25. A system as described in claim 23 where said system is programmed to rate said options with respect to a plurality of dimensions and to repeat d and e for each remaining one of said dimensions.

26. A system as described in claim 25 where said system is further programmed to adjust said master weights MW_j based on a user's evaluation of said list.

27. A system as described in claim 26 where said system is programmed to adjust said master weights MW_j by:

- a) said user identifying said user selected choice m' and a critical dimension n' ;
- b) calculating a partial derivative $P(MW_j') = \partial F_{m',n'}(MW_j) / \partial MW_j'$; where $F_{m',n'}(MW_j)$ is the deviation of option rating $R(m',n')$ from the mean rating, $\Sigma_m R(m,n')/M$, along said critical dimension n' , as a function of master weights MW_j , where M is the total number of options for which $R(m,n')$ is defined;
- c) setting $MW_j' = MW_j'(1 + \alpha P(MW_j'))$, where α is a small positive number; and
- d) repeating b and c for all remaining master weights MW_j .

28. A system as described in claim 26 where said system is programmed to adjust said master weights MW_j by::

- a) said user identifying a selected choice m' ;

- b) calculating a partial derivative $P(MW_j') = \partial F_{m',n'}(MW_j) / \partial MW_j'$; where $F_{m',n'}(MW_j)$ is the deviation of option rating $R(m',n)$ from the maximum rating, $\max(R(m,n))$ as a function of master weights MW_j ;
- c) setting $MW_j' = MW_j(1 + \alpha P(MW_j'))$, where α is a small positive number; and
- d) repeating steps b and c for all remaining master weights MW_j .

29. A computer readable medium for providing instructions to a data processing system, said instructions controlling said data processing system to:

- a) select and access type 1 databases, DB^1_i , each of said selected databases DB^1_i including at least one option rating, $OR_i(x,n)$, for one of said options, x , with respect to a dimension n , where said option x can differ among said selected databases;
- b) select and access type 2 databases DB^2_j , each of said type 2 databases DB^2_j including at least one database rating $DR_j(i)$ for at least one of said databases DB^1_i ;
- c) associate weights, W_i with said databases DB^1_i , said weights W_i being calculated as a function of said database ratings $DR_j(i)$; and
- d) calculate an overall rating $R(m,n)$ for an option m with respect to said dimension n as a function of said weights W_i and option ratings $OR_i(m,n)$;
- e) repeat d for each remaining one of said options for which there exists at least one option rating with respect to said dimension n ; and
- f) generate a list of said options and associated overall ratings with respect to dimension n .